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TECHNICAL REPORT  
NATICK/TRLB/001

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OCTOBER 1981 - SEPTEMBER 1982**

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UNITED STATES ARMY NATICK  
RESEARCH & DEVELOPMENT LABORATORIES  
NATICK MASSACHUSETTS 01760



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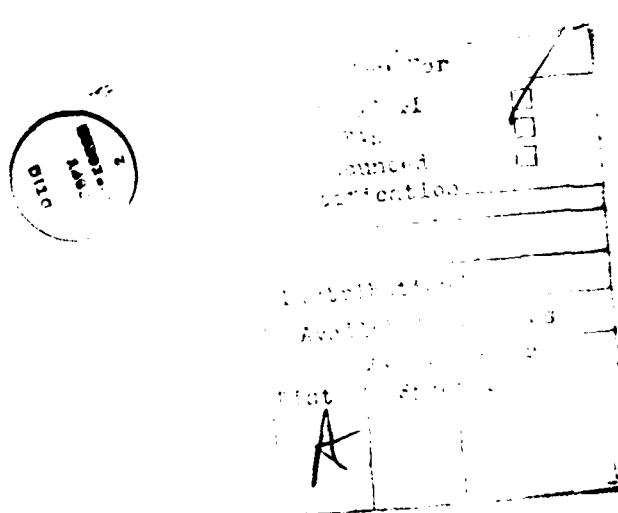
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## PREFACE

This bibliography is a list of technical publications and papers by personnel of the US Army Natick Research and Development Laboratories and its contractors for the period October 1981 through September 1982. The arrangement is by organizational elements.

Reprints of journal articles, in some cases, are available from the individual authors. Copies of technical reports may be obtained from (1) Defense Technical Information Center, Cameron Station, Alexandria, Virginia 22314, or (2) the National Technical Information Service, Springfield, Virginia 22161. The "AD" number should be cited when ordering copies of reports. Those reports marked with an asterisk (\*) are not available for distribution outside the agencies of the US Government. Technical papers refer to presentations for which no printed copies exist.

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US ARMY NATICK RESEARCH AND DEVELOPMENT LABORATORIES

OFFICE OF THE COMMANDER

Journal Articles

1. HAYES, J. S. Current programs and accomplishments of the US Army Natick Research and Development Laboratories. *Act. Rep. R&D Assoc.*, 34(2): 1-4 (1982).
2. \_\_\_\_\_ Current programs and policies of the US Army Natick R&D Laboratories. *Act. Rep. R&D Assoc.*, 34(1): 1-2 (1982).
3. \_\_\_\_\_ Natick R&D Labs (NLABS)...We make things better. *Army RD&A Magazine*, 23(4): 38 (1982)

Technical Papers

4. HAYES, J. S. Veterans Day Address. *Town of Natick Veterans Day Observance*, Natick, MA, 11 November 1981.
5. \_\_\_\_\_ Welcome Remarks. *30th Conference on Microbiological Deterioration of Military Materiel*, Natick, MA, 17 November 1981.
6. \_\_\_\_\_ What's new in food service. *National Security Industrial Association Symposium*, Natick, MA, 23 March 1982.
7. \_\_\_\_\_ Memorial Day Address. *Town of Natick Memorial Day Observance*, Natick, MA, 31 May 1982.

DEPUTY COMMANDER

Technical Papers

8. RUBIN, G. R. A time of change. Natick Rotary Club, Natick, MA,  
5 January 1982.

OFFICE OF TECHNICAL DIRECTOR

Journal Articles

9. BERENDT, S. E. Air Force food service in the 1990's. *Act. Rep. R&D Assoc.*, 34(1): 16-20 (1982).
10. BIANCO, T. A., JR. Future Navy foodservice needs and objectives. *Act. Rep. R&D Assoc.*, 34(1): 8-12 (1982).
11. KASTNER, W.W., III. Development and field testing the Arctic ration. *Act. Rep. R&D Assoc.*, 34(1): 13-15 (1982).

Technical Papers

12. BYRNE, R. J. Government overview. *National Security Industrial Association Symposium on What's New in Food Service*. US Army Natick Research and Development Laboratories, Natick, MA, 23-24 March 1982.
13. \_\_\_\_\_ Technology leadership into the twenty-first century. *School of Engineering and Dean's Advisory Council, University of Massachusetts, Amherst, MA*, 29 April 1982.
14. \_\_\_\_\_ Philosophy of management. *Natick Association of Federal R&D Managers*, US Army Natick Research and Development Laboratories, Natick, MA, 8 June 1982.
15. LEVELL, E. F. Market research and analysis - An engineering support activity's views. *DoD Standardization and Specification Seminar*, Leesburg, VA, 3-5 November 1981.
16. \_\_\_\_\_ Mission of Natick Laboratories. *Annual Meeting, National Industries for the Blind*, Atlanta, GA, 8-10 November 1981.

ENGINEERING PROGRAMS MANAGEMENT OFFICE

Technical Papers

17. DOYLE, W. J. Program analyses improvement. DOD Standardization and Specification Program Seminar, Leesburg, VA, 3 November 1981.
18. \_\_\_\_\_ NLABS food service equipment area. Defense Logistics Agency, Cameron Station, VA, 9 December 1981.
19. \_\_\_\_\_ NLABS ADCoP program in the food and food service equipment areas. Research and Development Associates for Military Food and Packaging Systems, Inc., Natick, MA, 9 February 1982.

Other Publications

20. SHIMKUS, D. F., and R. F. TUMEINSKI. The Natick Value Engineering Program. (Revised 1982).

OPERATIONS RESEARCH AND SYSTEMS ANALYSIS OFFICE

Technical Reports

21. HILL, B. M., M. OSTROWSKY, J. B. AHERN, G. TURK, D. P. LEITCH, L. E. SYMINGTON, and B. BELL. A fast service concept for Army dining facilities. NATICK/TR-82/035, July 1982.
22. \_\_\_\_\_, M. OSTROWSKY, J. B. AHERN, and G. TURK. A fast service concept utilizing a modular food facility. NATICK/TR-82/038, July 1982.
23. LAFERRIERE, R. R., L. R. BIRNBAUM, L. E. SYMINGTON, J. E. OVELMAN, and D. P. LEITCH. An evaluation of the proposed Marine Corps expeditionary food service system concept. NATICK/TR-82/029, January 1982.
24. NUSS, E. M., G. TURK, and P. BRANDLER. An instructional manual for the U.S. Air Force New Harvest Eagle field feeding system. NATICK/TR-82/034, July 1982.
25. \_\_\_\_\_, P. BRANDLER, L. E. SYMINGTON, G. TURK, and J. M. WALL. Field evaluations and definitions of the proposed Air Force forward base foodservice system - The New Harvest Eagle. NATICK/TR-82/033, July 1982.

Journal Articles

26. BRANDLER, P., J. BENEDRICK, M. HERZ, K. HIBBARD, and J. SUNDELL. Foodservice in an NBC environment. Act. Rep. R&D Assoc., 34(1): 29-35, 45 (1982).
27. DAVIS, M. M., and G. A. DARSCH. Current and projected foodservice requirements in future military feeding. Act. Rep. R&D Assoc., 34(1): 21-28 (1982).
28. SHORT, P. M., and M. KLICKA. Operational ration requirements to support Marine Corps amphibious operations. Act. Rep. R&D Assoc., 34(1): 36-45 (1982).

Technical Papers

29. BRANDLER, P., and HERZ, M. L. The effectiveness of individual chemical protection at reduced temperatures. Military Operations Research Society. Naval Postgraduate School, Monterey, CA, 2 December 1981.

OPERATIONS RESEARCH AND SYSTEMS ANALYSIS OFFICE

Technical Papers (continued)

30. BUSTEAD, R. L. Update on study at Moncrief Army Hospital:  
Systems analysis and test design phase. Symposium on  
Hospital Patient Feeding Systems, National Research  
Council, Minneapolis, MN, 21 October 1981.

TECHNICAL LIBRARY

Technical Reports

31. Bibliography of technical publications and papers: October 1980-September 1981. US Army Natick Research and Development Laboratories. NATICK/TR-82/001, November 1981 (AD A111 351).

AERO-MECHANICAL ENGINEERING LABORATORY

Technical Reports

32. BLACK, W. A. Engineering development tests - Airdrop Controlled Exit System (ACES). AAI Corp., Contract No. DAAK60-77-C-0076. Natick/TR-82/017, September 1980.
33. FARINACCI, A. L. Advanced development investigation - Airdrop Controlled Exit System (ACES). AAI Corp., Contract No. DAAK60-77-C-0076. Natick/TR-82/028, November 1978.
34. NYKVIST, W. Balloon-skirt airbags as airdrop shock absorbers: Performance in vertical drops. Natick/TR-82/026, December 1981.
35. STEEVES, E. C. Mathematical modeling of the biaxial stress-strain behavior of fabrics. Natick/TR-82/009, March 1982 (AD A115 058).
36. Simulation of the interaction between airdrop platforms and aircraft rollers. Natick/TR-82/014, April 1982.

Journal Articles

37. JOHNSON, A. R. On the accuracy of polynomial finite elements for crack problems. International Journal for Numerical Methods in Engineering, 17: 1834-1842 (1982).

Technical Papers

38. FANUCCI, J. P. Composite material structures for tactical shelters - a cost/weight study. Army Symposium on Solid Mechanics, Bass River, MA, 21-23 September 1982.
39. GOODRICK, T. F. Development of methods for assessment of gliding parachute applications. Army Science Conference, West Point, NY, June 1982.
40. JOHNSON, A. R. Large deformations and stability of axisymmetric Mooney membranes - finite element solutions. 28th Conference of Army Mathematicians, Bethesda, MD, June 1982.

AERO-MECHANICAL ENGINEERING LABORATORY

Technical Papers (continued)

41. MILLIGAN, R., and A. LUSH. Blast response of a hardened Army ISO shelter. Army Symposium on Solid Mechanics, Bass River, MA, 21-23 September 1982.
42. SMITH, R. S., and R. J. WALSH. Airdrop Materials Engineering Laboratory technical programs. Massachusetts Society of Professional Engineers, Regional Meeting, Natick, MA, March 1982.

Other Publications

43. GOODRICK, T. F. Gliding airdrop. American Institute of Aeronautics & Astronautics, 1982.
44. NYKVIST, W. Field space heaters: Design and test of four alternative concepts. NATICK/TN-82/006-AMEL, July 1982.

FOOD ENGINEERING LABORATORY

Technical Reports

45. AYOUB, J., and A. RAHMAN. Intensive agriculture unit (hydroponics). NATICK/TR-82/039, (FEL-029), August 1982.
46. GORFIEN, H., and A. R. RAHMAN. Literature survey on cause of spoilage of fresh produce 1959 to 1977. NATICK/TR-82/040, (FEL-119), August 1982.
47. HU, K., and V. RICARDI. Determination of energy consumption of food service at Fort Devens, MA. NATICK/TR-82/042, (FEL-010), December 1981.
48. KLICKA, M. V., and M. C. SMITH, JR. Food for U.S. manned space flight. NATICK/TR-82/019, April 1982.
49. \_\_\_\_\_, M. BRANAGAN, B. ATWOOD, W. SWANTAK, D. SHERMAN, and K. THOMPSON. Nutritionally fortified fruitcake (thermo-processed, flexibly packaged) developed for shuttle flight use. NATICK/TR-82/004, (FEL-113), June 1982.
50. MASON, V. C., A. I. MEYER, and M. V. KLICKA. Summary of operational rations. NATICK/TR-82/013, June 1982.
51. SHAW, C. P., G. A. DARSCH, and J. M. TUOMY. A survey of hospitals using a restaurant menu approach in patient tray feeding. NATICK/TR-82/007, (FEL-116), January 1982.
52. SWANTAK, W., N. KELLEY, H. GORFIEN, G. SCHAFER, and A. RAHMAN. Vegetable, sauce, and bakery item production guide for Walter Reed Army Medical Center. NATICK/TR-82/025, (FEL-114), June 1982.
53. WHITE, V. Effects of processing and reheating on nutrient content of precooked frozen foods. NATICK/TR-82/002, (FEL-115), October 1981.

Journal Articles

54. COSTANZA, F. A. Revised specifications for MRE and retort pouches. Act. Rep. R&D Assoc., 34(2): 153-155, 161 (1982).

FOOD ENGINEERING LABORATORY

Journal Articles (continued)

55. DECAREAU, R. V. Microwave research & development at the U.S. Army Natick Research and Development Laboratories. *J. Microwave Power*, 17(2): 127-135 (1982).
56. LAMPI, R. Catering considerations in European countries. *Act. Rep. R&D Assoc.*, 34(1): 79-90 (1982).
57. SCHULZ, G. L. Military needs in food packaging. *Act. Rep. R&D Assoc.*, 34(1): 128-132, 146 (1982).
58. SHORT, P. M., and M. KLICKA. See entry no. 28.
59. SHULTS G. Dairy products with improved quality, utilization features, and future developments. *Act. Rep. R&D Assoc.*, 34(1): 140-146 (1982).
59. SMITH, J., S. COHEN, R. SEGARS, A. CARDELLO, and F. M. ROBBINS. Instrumental and sensory analysis of action of catheptic enzymes on flaked and formed beef. *Food Microstructure*, 1: 672-685 (1982).
60. WHITBURN, K. D., J. J. SHIEH, R. M. SELLERS, M. Z. HOFFMAN, and I. A. TAUB. Redox transformations in ferrimyoglobin induced by radiation-generated free radicals in aqueous solution. *J. Biol. Chem.*, 257(4): 1860-1869 (1982).

Technical Papers

61. COSTANZA, F. Revised specifications for MRE and retort pouches. Research and Development Associates for Military Food and Packaging Systems, Inc., Chicago, IL, 7 April 1982.
62. DECAREAU, R. Microwaves in food processing. Minnesota Section, Institute of Food Technologists, Minneapolis, MN, 16 February 1982.
63. Product development for the microwave oven market. Rocky Mountain Section, Institute of Food Technologists, Fort Collins, CO, 18 February 1982.

FOOD ENGINEERING LABORATORY

Technical Papers (continued)

64. DECARAU, R. Product development for the microwave oven market. Texas Section, Institute of Food Technologists. Houston, TX, 1 April 1982.
65. Product development for the microwave oven market. Florida Section, Institute of Food Technologists, Lakeland, FL, 22 April 1982.
66. Space age foods and the caterer. Global Host Seminar, International Catering Trade Fair, Sidney, Australia, 22 June 1982.
67. Product development for the microwave oven market. College of Catering Studies and Hotel Administration, Ryde, N.S.W. Australia, 23 June 1982.
68. Microwaves in food processing. Commonwealth Scientific and Industrial Research Organization, North Ryde, N.S.W. Australia, 25 June 1982.
69. Microwaves in food processing and product development for the microwave oven market. Joint Meeting, Food Service Group/Food Engineering Group, Australian Institute of Food Science and Technology, N.S.W. Branch at School of Food Technology, University of New South Wales, Sidney, Australia, 28 June 1982.
70. Product development for the microwave oven market. Queensland Branch, Australian Institute of Food Science and Technology, Brisbane, Australia, 29 June 1982.
71. Product development for the microwave oven market. South Australian Branch, Australian Institute of Food Science and Technology at Regency Park Catering College, Adelaide, Australia, 30 June 1982.
72. Microwaves in food processing. Southern Branch, Australian Institute of Food Science and Technology at William Angliss College of Catering, Melbourne, Australia, 31 July 1982.

FOOD ENGINEERING LABORATORY

Technical Papers (continued)

73. EAMES, C. Food research & development as a possible career choice. Framingham State College (Life Cycle Nutrition Class), Framingham, MA, 21 January 1982.
74. Space foods and food research and development for the Armed Forces. Eliot Church Women's Club, Natick, MA, 22 February 1982.
75. Color in foods and food R&D for the Armed Forces. Framingham State College (Experimental Foods Class), Framingham, MA, 24 September 1982.
76. HEILIGMAN, F., R. YOUNG, and E. KLINE. Pork sausage items in thermally processed T-Ration cans. 1982 Annual Meeting, Institute of Food Technologists, Las Vegas, NV, June 1982.
77. KLICKA, M. Foods of the future. Workshop, University of Massachusetts, Boston, MA, 7 November 1981.
78. Research and development on foods for the Armed Forces. Wellesley Hills Congregational Church (Night Shift Group), Wellesley, MA, 9 March 1982.
79. LAMPI, R. Status and trends in packaging and selected food product and food service developments. 11th International Food Symposium, Japan External Trade Organization, Tokyo, Japan, 16-17 February 1982.
80. LOVERIDGE, V., and M. BRANAGAN. Use of flaked meat in freeze dehydrated entrees. 1982 Annual Meeting, Institute of Food Technologists, Las Vegas, NV, June 1982.
81. , and J. ROSADO. Use of microwaves in the production of reversibly compressed freeze-dehydrated foods. Microwave Power Symposium, San Diego, CA, July 1982.
82. MCNUTT, J. Food production alternatives for modified diet meals. Symposium on Hospital Patient Feeding Systems, Minneapolis, MN, 19 October 1981.
83. Restructured meats used by the military. Winter Meeting, National Live Stock and Meat Board, Chicago, IL, 22 February 1982.

FOOD ENGINEERING LABORATORY

Technical Papers (continued)

84. MEYERS, M. Packaging developments at NLABS. Woburn Sportsmen Club, Woburn, MA, 8 October 1981.
85. SALANT, A., and G. SCHULZ. The new US Army combat field feeding system. Triennial Defense Science Organization Conference, Sydney, Australia, 11-12 May 1982.
86. Get in step with the Army. Consumer Affairs Council, Food Marketing Institute, Chicago, IL, 22 September 1982.
87. SECRIST, J. Restructured meats for the military. Southwest Meat Packers Conference, Texas A&M University, College Station, TX, January 1982.
88. SHAW, C. Food production alternatives for modified diet meals. Symposium on Hospital Patient Feeding, Minneapolis, MN, October 1981.
89. Research and development of military foods. Senior Citizens at Medfield, Medfield, MA, April 1982.
90. SHULTS, G., C. BLODGETT, and J. SUNDERLAND. Engineering design for an automated compression system for dried foods. Third International Drying Symposium, University of Birmingham, England, September 1982.
91. SMITH, J. Restructured meat products, commercial applications in prepared meals for the military. 24th Annual Meat Science Institute, Athens, GA, 14-16 March 1982.
92. B. BERRY, J. SECRIST, M. STANFIELD, S. DOUGLASS, and I. TENNANT. Effects of flake size and sample serving temperature on textural properties of restructured beef steaks. 1982 Joint Annual Meeting, American Society of Animal Science and Canadian Society of Animal Science, Guelph, Ontario, Canada, 8-11 August 1982.
93. WHITE, V. Field feeding for the Armed Forces. Symposium on Hospital Food Service in Fixed and Field Hospital, Academy of Health Sciences, San Antonio, TX, 17 March 1982.

FOOD ENGINEERING LABORATORY

Other Publications

94. DUNNE, C. P. Relationship between extracellular proteases and the cellulose complex of Trichoderma reesei. In Enzyme Engineering, Volume 6, Plenum Publishing Corp., New York, 1982, pp. 355-356.
95. LAMPI, R. Status and trends in packaging and selected food product and food service developments. Proceeding of 11th International Food Symposium, Japan External Trade Organization, Tokyo, Japan, 1982.
96. WANG, C. Eigenvalues for heat diffusion equation for finite cylinders and plates by computer. Army Research Office, ARO Report #81-3, 1981, pp. 247-260.

INDIVIDUAL PROTECTION LABORATORY

Technical Reports

97. GOLDGRABEN, J. R., and B. ENGELBERG. Data acquisition and analysis for camouflage design. Decilog, Inc., Contract No. DAAK60-79-C-0072. Natick/TR-82/037, August 1982.
98. HUGHES, L. R., and S. WEISBROD. Flexible radar absorber material. Teledyne Micronetics, Contract No. DAAK60-78-C-0090. Natick/TR-82/020, (IPL-242), October 1981.
99. IACONO, V. D., J. S. COHEN, M. KUPCINSKAS, D. GORBEA, and J. FRATANTUONO. Development of a microclimate cooling system for combat vehicles. Natick/TR-82/010, (IPL-248), February 1982 (AD A112 017).
100. LACERTE, R. F., and B. W. SHECTER. Evaluation of military combat boots from NATO countries. Natick/TR-82/012, (IPL-253), March 1982 (AD 112 252).
101. MARTIN, P. E., R. N. HINRICKS, SHIN IN-SIK, and R. C. NELSON. A mathematical model of the inertial properties of a carrier - backpack system (Volume IV). Biomechanics Lab, Penn State University, Contract No. DAAK60-79-C-0131. Natick/TR-82/022, (IPL-252), May 1982.
102. \_\_\_\_\_, and R. C. NELSON. Effects of gender, load and backpack on the temporal and kinematic characteristics of walking gait (Volume III). Biomechanics Lab, Penn State University, Contract No. DAAK60-79-C-0131. Natick/TR-82/021, April 1982.
103. MCCONVILLE, J. T., K. M. ROBINETTE, and R. M. WHITE. An investigation of integrated sizing for US Army men and women. Anthropology Research Project, Inc., Contract No. DAAK60-79-C-0097. Natick/TR-81/033, (IPL-242), August 1981 (AD A109 496).

INDIVIDUAL PROTECTION LABORATORY

**Technical Reports (continued)**

104. NELSON, R. C., and P. E. MARTIN. Effects of gender, load and backpack on easy standing and vertical jump performance (Volume II). Biomechanics Lab, Penn State University, Contract No. DAAK60-79-C-0131. NATICK/TR-82/016, (IPL-240), March 1982.
105. \_\_\_\_\_, and P. E. MARTIN. Effects of gender and load on combative movement performance (Volume I). Biomechanics Lab, Penn State University, Contract No. DAAK60-79-C-0131. NATICK/TR-82/011, (IPL-237), February 1982.
106. SIMON, F. T., and J. H. LUBAR. Standardization procedure for two instruments for color measurement. Clemson University, Contract No. DAAK60-79-C-0096. NATICK/TR-82/024, (IPL-239), September 1981.

**Journal Articles**

107. HEALY, E. M., A. O. RAMSLEY, and M. L. HERZ. Rate characteristics for the reaction of carboxyl-modified polyamide with potassium hydroxide. *J. Appl. Polym. Sci.*, 26(10): 3305-3309 (1981).
108. MALONEY, M. J., E. G. PAQUETTE, R. F. LACERTE, and D. S. SWAIN. Boots, boots, boots, boots, - Movin up and down again. *Industrial Research and Development*, 24(6): 120-123 (1982).
109. SCHRECK, C. E., and F. KANE. Permethrin impregnations of military fabrics: An evaluation of application rates and industrial methods of bioassay and gas chromatographic analysis. *Soap, Cosmet., Chem.*, 58(8): 38 (1982).

**Technical Papers**

110. COMMERFORD, T. R. Instrument shade acceptance - Progress report. Technical Symposium of the Rhode Island Section, American Association of Textile Chemists and Colorists, Seekonk, MA, 22 January 1982.
111. FIGUCIA, F., C. WILLIAMS, B. KIRKWOOD, and W. KOZA. Mechanism of improved ballistic performance. US Army Science Conference, West Point, NY, 18 June 1982.

INDIVIDUAL PROTECTION LABORATORY

Technical Papers (continued)

112. HENRY, M. C. Chemical protective clothing for pesticide operators. Northwestern Mosquito Control Association, Newport, RI, November 1981.
113. LAIBLE, R. C. Materials for chemical protection - An overview. CSL Scientific Conference on Chemical Defense Research, Aberdeen, MD, November 1981.
114. LASTNIK, A. Measuring sound attenuation capabilities using a Kemar manikin. American Standards Association, Spring Meeting, 26-30 April 1982.
115. \_\_\_\_\_ Real ear attenuation characteristics of two protective helmets evaluated under two ANSI standards methods. American Standards Association Spring Meeting, 26-30 April 1982.
116. MACNAIR, R. M. Dynamic sorptivity of the suit, chemical protective and mechanisms of degradation in storage - Stock surveillance program for suit, chemical protective. Directorate for Product Assurance, US ARRCOM, Rock Island, IL, 4-5 August 1982.
117. RAMSLEY, A. O., and W. G. YEOMANS. Psychophysics of modern camouflage. US Army Science Conference, West Point, NY, 15-18 June 1982.
118. ROTH, R. W., and J. V. E. HANSEN. Individual clothing and personal equipment. American Defense Preparedness Association, Fort McClellan, AL, 21 April 1982.
119. \_\_\_\_\_, and J. V. E. HANSEN. Current status of research and development, chemical protective clothing. Industrial Fabrics Association International, New York, NY, 19 May 1982.
120. \_\_\_\_\_ R & D activities in fabrics and products. Industrial Fabrics Association International, New York, NY, 19 May 1982.

SCIENCE AND ADVANCED TECHNOLOGY LABORATORY

Technical Reports

121. BLODGETT, C. R. Ultrafiltration of munition wastes (HMX, RDX and TNT). NATICK/TR-82/005, September 1981 (AD A113 649).
122. KAPLAN, D. L., and A. M. KAPLAN. 2, 4, 6-Trinitroluene-surfactant complexes, biodegradability mutagenicity and soil leaching studies. NATICK/TR-82/006, (SATL-D320), January 1982.
123. \_\_\_\_\_, and A. M. KAPLAN. Thermophilic transformation of 2, 4, 6-trinitroluene in composting systems. NATICK/TR-82/015, (SATL-D320), March 1982.
- KLICKA, M. V., M. D. BRANAGAN, B. ATWOOD, W. SWANTAK, D. SHERMAN, and K. THOMPSON. See entry no. 49.
124. ROGERS, M. R., J. KUTZKO, and A. M. KAPLAN. The halogen demand of commercial beverage powders, drinks and their constituents. NATICK/TR-82/018, February 1982.
125. WILEY, B. J., ed. Thirtieth conference on microbiological deterioration of military materiel, 17-19 November 1981. NATICK/TR-82/027, June 1982.\*

Journal Articles

126. ALABRAN, D. M. Isolation and identification of additional beef flavor precursors. J. Agr. & Food Chem., 30(3): 486-488 (1982).
127. ALLEN, A. L., and R. E. MORTENSEN. Production of cellulase from Trichoderma reesei in fed-batch fermentation from soluble carbon sources. Biotechnol. Bioeng., 23(11): 2641-2645 (1981).
128. BARRY, E. F., K. P. LI, and C. MERRITT, JR. Behavior of chromatography columns with a varying stationary phase: I. Segmented liquid phase loadings. J. Chromatogr. Sci., 20(8): 357-362 (1982).
129. CARDELLO, A. V., and O. MALLER. Acceptability of water, selected beverages and foods as a function of serving temperature. J. Food Sci., 47(5): 1549-1552 (1982).

SCIENCE AND ADVANCED TECHNOLOGY LABORATORY

Journal Articles (continued)

130. CARDELLO, A. V., and O. MALLER. Relationships between food preferences and food acceptance ratings. *J. Food Sci.*, 47(5): 1553-1557, 1561 (1982).
131. \_\_\_\_\_, A. MATAS, and J. SWEENEY. The standard scales of texture: Rescaling by magnitude estimation. *J. Food Sci.*, 47(5): 1738-1739, 1742 (1982).
132. \_\_\_\_\_, O. MALLER, J. G. KAPSALIS, R. A. SEGARS, F. M. SAWYER, C. MURPHY, and H. R. MOSKOWITZ. The perception of texture by trained and consumer panelists. *J. Food Sci.*, 47(4): 1186-1197 (1982).
133. COHEN, S. H., R. A. SEGARS, A. CARDELLO, J. SMITH, and F. M. ROBBINS. Instrumental and sensory analysis of the action of catheptic enzymes on flaked and formed beef. *Food Microstructure*, 1(1): 99-105 (1982).
134. DUBOSE, C. N., O. MALLER, and A. V. CARDELLO. Health care providers' attitudes toward nutrition. *Evaluation and the Health Professions*, 4(2): 173-187 (1981).
135. EDELMAN, B., and O. MALLER. Facts and fictions about infantile obesity. *Int. J. Obes.*, 6(1): 69-81 (1982).
136. FIRSTENBERG-EDEN, R., D. B. ROWLEY, and G. E. SHATTUCK. Factors affecting growth and toxin production by Clostridium botulinum type E on irradiated (0.3 Mrad) chicken skins. *J. Food Sci.*, 47(3): 867-870 (1982).
137. HIRSCH, E., C. DUBOSE, and H. L. JACOBS. Overeating dietary selection patterns and sucrose intake in growing rats. *Physiol. Behav.*, 28(5): 819-828 (1982).
138. \_\_\_\_\_, and M. WALSH. Effect of limited access to sucrose on overeating and patterns of feeding. *Physiol. Behav.*, 29(1): 129-134 (1982).
139. JOHNSON, E. A., M. PELEG, R. A. SEGARS, and J. G. KAPSALIS. A generalized phenomenological rheological model for fish flesh. *J. Texture Stud.*, 12(4): 413-425 (1981).
140. KAPLAN, D. L., J. H. CORNELL, and A. M. KAPLAN. Biodegradation of glycidol and glycidyl nitrate. *Appl. Environ. Microbiol.*, 43(1): 144-150 (1982).

SCIENCE AND ADVANCED TECHNOLOGY LABORATORY

Journal Articles (continued)

141. KAPLAN, D. L., and A. M. KAPLAN. Separation of mixtures of 2,4,6-Trinitrotoluene reduction products with liquid chromatography. *Anal. Chim. Acta*, 136: 425-428 (1982).
142. \_\_\_\_\_, and A. M. KAPLAN. Mutagenicity of 2,4,6-Trinitrotoluene-surfactant complexes. *Bull. Environ. Contam. Toxicol.*, 28(1): 33-38 (1982).
143. \_\_\_\_\_, and A. M. KAPLAN. Composting industrial wastes - biochemical consideration. *Biocycle*, 42-44 (1982).
144. \_\_\_\_\_, J. H. CORNELL, and A. M. KAPLAN. Decomposition of nitroguanidine. *Environ. Sci. Technol.*, 16(8): 488-492 (1982).
145. \_\_\_\_\_, and A. M. KAPLAN. 2,4,6-Trinitrotoluene-surfactant complexes: decomposition, mutagenicity and soil leaching studies. *Environ. Sci. Technol.*, 16(9): 566-571 (1982).
146. \_\_\_\_\_, J. WALSH, and A. M. KAPLAN. Chromatographic analysis of glycols to determine biodegradability. *Environ. Sci. Technol.*, 16(10): 723-725 (1982).
147. KIM, M. H., S. B. LEE, D. D. RYU, and E. T. REESE. Surface deactivation of cellulase and its prevention. *Enzyme Microb. Technol.*, 4(2) 99-103 (1982).
148. KOWAL, D. M., and O. MALLER. The prevention of chronic diseases: A challenge to military medicine. *Mil. Med.*, 146(12): 890-891 (1981).
149. KRANTZLER, N. J., B. J. MULLEN, E. M. COMSTOCK, C. A. HOLDEN, H. G. SCHUTZ, L. E. GRISETTI, and H. L. MEISELMAN. Methods of food intake assessment - An annotated bibliography. *J. Nutr. Education*, 14(3): 108-119 (1982).
150. LEE, R. Y., G. J. SILVERMAN, and D. T. MUNSEY. Growth and enterotoxin A production by Staphylococcus aureus in precooked bacon in the intermediate moisture range. *J. Food Sci.*, 46(6): 1687-1692 (1981).
151. MCCORMICK, N. G., J. H. CORNELL, and A. M. KAPLAN. Biodegradation of hexahydro-1,3,5-trinitro-1,3,5-triazine. *Appl. Environ. Microbiol.*, 42(5): 817-823 (1981).

SCIENCE AND ADVANCED TECHNOLOGY LABORATORY

Journal Articles (continued)

152. MERRITT, C., JR., and M. VAJDI. Identification of radiation-induced triglyceride adducts by mass spectrometry. *J. Am. Oil Chem. Soc.*, 59(4): 172-177 (1982).
153. MURPHY, C., A. V. CARDELLO, and J. G. BRAND. Taste of fifteen halide salts following water and NaCl: anion and cation effects. *Physiol. Behav.*, 26(6): 1083-1095 (1981).
154. REESE, E. T. Elution of cellulase from cellulose. *Process Biochem.*, 17(3): 2-6 (1982).
155. \_\_\_\_\_, and F. M. ROBBINS. Denaturation of  $\beta$ -lactoglobulin by shaking and its subsequent renaturation. *J. Colloid Interface Sci.*, 83(2): 393-400 (1981).
156. ROBBINS, F. M., and J. E. WALKER, JR. Separation of catheptic enzymes of spleen by isoelectric focusing. *J. Agric. Food Chem.*, 30(1): 61-65 (1982).
157. ROGERS, M. R., and A. M. KAPLAN. Role of microbial and non-microbial contaminants in diesel-fueled vehicle malfunctions. *Dev. Ind. Microbiol.*, 23: 147-165 (1982).
158. RYU, D. D. Y., S. B. LEE, T. TASSINARI, and C. MACY. Effect of compression milling on cellulose structure and on hydrolysis kinetics. *Biotechnol. Bioeng.*, 24(5): 1047-1067 (1982).
159. SALTER, C. A., and D. I. TEMPLER. Attitudes toward laetrile in relation to death anxiety and experience with cancer in the family. *Psychol. Rep.*, 49(2): 629-630 (1981).
160. \_\_\_\_\_ How to develop executive creativity. *Circulation Idea Service*, 18-19 (1981).
161. \_\_\_\_\_ Nutritional and health hints for carriers. *Circulation Idea Service*, 21-22 (1982).
162. \_\_\_\_\_ Prediction of managerial success. *Circulation Idea Service*, 17-18 (1982).
163. SANDICK, B., and A. V. CARDELLO. Tastes profiles from single circumvallate papillae: Comparison with fungiform profiles. *Chem. Senses*, 6(3): 197-214 (1981).

SCIENCE AND ADVANCED TECHNOLOGY LABORATORY

Journal Articles (continued)

164. SEGARS, R. A., A. V. CARDELLO, and J. S. COHEN. Objective and subjective texture evaluation of irradiation sterilized meat products. *J. Food Sci.*, 46(4): 999-1003 (1981).
165. \_\_\_\_\_, E. A. JOHNSON, J. G. KAPSALIS, and M. PELEG. Some tensile characteristics of raw fish flesh. *J. Texture Stud.*, 12(3): 375-387 (1982).
166. SILVERMAN, G. J., E. W. ROSS, and W. P. KAUTZ. Assessment of the sanitary quality of food preparation surfaces. *J. Food Service Systems*, 1(4): 285-301 (1981).
167. SMITS, G. J. A FORTRAN IV function to compute the probability of a standard normal deviate. *Behav. Res. Methods and Instrument.*, 13(5): 701 (1981).
168. STERNBERG, D., and G. R. MANDELS.  $\beta$ -Glucosidase induction and repression in the cellulolytic fungus, *Trichoderma reesei*. *Exp. Mycol.*, 6(2): 115-124 (1982).
169. TASSINARI, T. H., C. F. MACY, and L. A. SPANO. Technology advances for continuous compression milling pretreatment of lignocellulosics for enzymatic hydrolysis. *Biotechnol. Bioeng.*, 24(1): 1495-1505 (1982).
170. TEMPLER, D. I., C. SALTER, S. DICKEY, R. BALDWIN, and D. VELEBER. The construction of a pet attitude scale. *Psychological Record*, 31: 343-348 (1981).
171. THOMAS, M. H., R. V. DECAREAU, and B. M. ATWOOD. Thiamin and riboflavin content of flake-cut formed pork roasts. *J. Microwave Power*, 17(1): 83-87 (1982).
172. VAJDI, M., W. W. NAWAR, and C. MERRITT, JR. Effects of various parameters on the formation of radiolysis products in model systems. *J. Am. Oil Chem. Soc.*, 59: 38-42 (1982).

Technical Papers

173. ALLEN, A. L., and R. E. ANDREOTTI. Cellulase production in continuous and fed-batch culture by *Trichoderma reesei* MCG80. 4th Symposium of Biotechnology in Energy Production and Conversation. Gatlinburg, TN, May 1982.

SCIENCE AND ADVANCED TECHNOLOGY LABORATORY

Technical Papers (continued)

174. ALLEN, A. L. Production of single cell protein from Trichoderma reesei. Rhode Island College, Providence, RI, March 1982.
175. CARDELLO, A. V. Psychophysical basis for the classification of fish by flavor, texture and appearance. Gordon Research Conference: The Chemical Senses - Tastes and Smell, New Hampshire, July 1981.
176. \_\_\_\_\_ Patients' perceptions of meal acceptability. National Academy of Sciences/National Research Council, Symposium on Hospital Patient Feeding, Minneapolis, MN, October 1981.
177. \_\_\_\_\_, F. M. SAWYER, and P. PRELL. Application of multivariate statistical analysis to the grouping of fish species. 27th Annual Atlantic Fisheries Technical Conference, Portland, ME, 20-23 September 1982.
178. COHEN, S. H., R. A. SEGARS, A. CARDELLO, J. SMITH, and F. M. ROBBINS. Instrumental and sensory analysis of the action of catheptic enzymes of flaked and formed beef. Scanning Electron Microscopy Meeting, Anaheim, CA, 25-30 April 1982.
179. GALLO, B. The use of microbial and mammalian enzymes to degrade organophosphorus compounds. U.S. Army Natick Research and Development Laboratories, Natick, MA, June 1982.
180. \_\_\_\_\_ Cellulase production by the new hyperproducing strain of Trichoderma reesei MCG80. 1982 Winter National Meeting, American Institute of Chemical Engineers, Orlando, FL, 28 February-3 March 1982.
181. \_\_\_\_\_ An overview of the Natick process of converting cellulose into ethanol. Brooklyn College, Brooklyn, NY, 4 December 1981.
182. JOHNSON, E., M. PELEG, F. M. SAWYER, R. SEGARS, and A. V. CARDELLO. Mechanical methods of measuring textural characteristics of fish flesh. Joint Meeting, International Institute of Refrigeration, Boston, MA, August 1981.
183. KAPLAN, D. L., and A. M. KAPLAN. Composition of 2, 4, 6 - Trinitrophenol, 82nd Annual Meeting, American Society for Microbiology, Atlanta, GA, 7-12 March 1982.

SCIENCE AND ADVANCED TECHNOLOGY LABORATORY

Technical Papers (continued)

184. LEVINSON, H. S., and F. E. FEEHERRY. Further observations on reversion to refractivity of phase-dark germinated spores of Clostridium perfringens. 82nd Annual Meeting, American Society for Microbiology, Atlanta, GA, 7-12 March 1982.
185. Germination of bacterial spores. Junior Science and Humanities Symposium, Massachusetts Institute of Technology, Cambridge, MA, 21 May 1982.
186. MALLER, O., A. V. CARDELLO, J. SWEENEY, and D. SHAPIRO. Psychophysical and cognitive correlates of the discretionary usage of table salt and sugar by humans. Symposium of the European Chemoreception Research Organization, Jerusalem, Israel, November 1981.
187. MANDELS, M., and E. T. REESE. Rolling with the times: Production and applications of Trichoderma reesei cellulase. Marvin Johnson Award in Microbial and Biochemical Technology Address, American Chemical Society, Kansas City, MO, 15 September 1982.
188. MCCORMICK, N. G., J. H. CORNELL, and A. M. KAPLAN. The biodegradation of munition plant waste products in an anaerobic continuous culture systems. 82nd Annual Meeting, American Society for Microbiology, Atlanta, GA, 7-12 March 1982.
189. MERRITT, C., JR. Radiolysis products in meats and meat substances. Seminar, Eastern Regional Research Center, U.S. Department of Agriculture, Philadelphia, PA, 9 February 1982.
190. Chemistry and safety of irradiated meats. Symposium on Radiation Technology, Rutgers University, New Brunswick, NJ, 25 May 1982.
191. PORTER, W. L. Predictions in fluctuating environments. Second Eastern Food Science and Technology Conference. Lancaster, PA, 4-7 October 1981.
192. , E. D. BLACK, A. M. DROLET, and J. G. KAPSALIS. Analytical use of fluorescence-producing reactions of lipid and carbohydrate-derived carbonyl groups with amine end groups of polyamide powder. American Chemical Society, Symposium on the Maillard Reaction in Foods and Nutrition, Las Vegas, NV, 29 March-2 April 1982.

SCIENCE AND ADVANCED TECHNOLOGY LABORATORY

Technical Papers (continued)

193. PORTER, W. L., J. G. KAPSALIS, A. M. WETHERBY, A. M. DROLET, and E. D. BLACK. A rationale for evaluation and selection of antioxidants for protection of ration items of different types. U. S. Army Science Conference, West Point, NY, 15-18 June 1982.
194. POWERS, E. M. Analytical microbiological effort in support of the development of foods. Microbiological Safety of Foods in Feeding Systems, National Research Council, Natick, MA, 8-9 June 1982.
195. SAWYER, F. M., A. V. CARDELLO, and P. PRELL. Development of methodology for the sensory assessment of fish. 27th Annual Atlantic Fisheries Technical Conference, Portland, ME, 20-23 September 1982.
196. SILVERMAN, G. Assuring the microbiological quality of hospital patient feeding systems. Symposium on Hospital Patient Feeding Systems, National Academy of Sciences, Minneapolis, MN, 19-21 October 1981.
197. \_\_\_\_\_ Methodologies to maximize the microbiological quality of food during meal assembly, distribution and service. Walter Reed Army Medical Center, Washington, DC, 4 November 1981.
198. \_\_\_\_\_ Microbiological considerations in radiation sterilization. Symposium on Radiation Sterilization of Medical Devices, Health Industry Manufacturers Association, Atlanta, GA, 30 November-2 December 1981.
199. \_\_\_\_\_ Food microbiology. School of Public Health, Harvard University, Boston, MA, 6 January 1982.
200. \_\_\_\_\_ Assuring the microbiological safety of military feeding systems. Microbiological Safety of Foods in Feeding Systems, National Research Council, Natick, MA, 8-9 June 1982.

Other Publications

201. CARDELLO, A. V. Patients' perceptions of meal acceptability. In Hospital Patient Feeding Systems: Proceedings of a Symposium. National Academy Press, Washington, DC, 1982, pp. 31-104.

SCIENCE AND ADVANCED TECHNOLOGY LABORATORY

Other Publications (continued)

202. FEEHERRY, F. E. Influence of ions on the germination of Clostridium perfringens spores. M.S. Dissertation, Northeastern University, Boston, MA, 1982.
203. FREGLEY, M. J., and H. L. JACOBS. The potential for reducing sodium levels in foods. In Product Development in Implementation of Dietary Guidelines. G. R. Moshby, and C. Chang (eds). Food and Nutrition Press, Westport, CT, 1982, pp. 139-153.
204. GALLO, B. J., T. TASSINARI, L. SPANO, and D. RYU. Cellulase process improvements and its economics. In Advances in Biotechnology: Fermentation and Yeasts, Volume 3. M. Moo-Young (ed). Pergamon Press, NY, 1981, pp. 281-288.
205. GRECZ, N., D. B. ROWLEY, and A. MATSUYAMA. The action of radiation on bacteria and viruses. In Preservation of Food by Ionizing Radiation, Volume I. E. Josephson, and M. Peterson (eds). CRS Press Inc, Boca Raton, FL, 1981.
206. JOHNSON, E. A., M. PELEG, F. M. SAWYER, R. A. SEGARS, and A. CARDELLO. Mechanical methods of measuring textural characteristics of fish flesh. In Advances in the Refrigerated Treatment of Fish. Proceedings of Meeting of International Institute of Refrigeration, Boston, MA, 1981, pp. 93-102.
207. KING, F. J., J. G. KAPSALIS, A. V. CARDELLO, and J. R. BROOKER. Consumer and instrumental edibility measures for grouping of fish species. In Advances in Fish Science and Technology. J. J. Cornell (ed). Fishing New Books Limited, Surrey, England, 1980.
208. MALLER, O., A. V. CARDELLO, J. SWEENEY, and D. SHAPIRO. Psychological and cognitive correlates of discretionary usage of table salt and sugar by humans. In The Chemical Determination of Behavior. J. Steiner, and J. Ganchrow (eds). Information Retrieval Ltd, London, 1982.
209. MANDELS, M. Cellulases. In Annual Reports on Fermentation Processes, Volume 5. G. Tsao (ed). 1982, pp. 35-78.
210. MEISELMAN, H. L. Consumer studies. In Sensory Analysis of Foods. J. R. Piggott (ed). Applied Science Publishers, Barking, England, 1982.

SCIENCE AND ADVANCED TECHNOLOGY LABORATORY

Other Publications (continued)

211. MEISELMAN, H. L. Variables affecting the psychophysical function for taste. In *Olfaction & Taste VIII*. Information Retrieval Ltd, London, 1981, pp. 359-362.
212. SANDICK, B. Taste response of circumvallate papillae. M.S. Dissertation, Department of Psychology, Brandeis University, 1982.
213. SAWYER, F. M., P. PRELL, A. V. CARDELLO, O. MALLER, and J. KAPSALIS. A comparison of flavor and texture characteristics of selected underutilized species of North Atlantic fish and certain commercially important species. In *Advances in the Refrigerated Treatment of Fish*. International Institute of Refrigeration, Paris, France, 1982, pp. 505-514.

Patents

214. SEGARS, R. A. Temperature responsive control circuit. US Patent No. 4,340,850, 20 July 1982.

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